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ONTARIO
DEPARTMENT OF EDUCATION

Regulations

and

Courses of Study

for the

Agricultural Departments

of the

Continuation Schools at Carp, and Markdale; the High Schools at Dutton, Essex, Newmarket, Norwood, Orangeville, Petrolea, Port Hope, Simcoe, and Stirling; and the Collegiate Institutes at Collingwood, Galt, Lindsay, Morrisburg, Perth, Picton, and Whitby

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Session of 1911-1912

TEACHERS OF AGRICULTURE IN THE HIGH AND CONTINUATION SCHOOLS.

Functions of Agricultural Appointee.

1.—(1) The teacher of agriculture appointed under the High and Continuation Schools Acts shall perform, in addition, the duties of county representative of the Department of Agriculture.

(2) The Industrial Education Act of last Session provides as follows:

> Where, in accordance with the regulations, an agricultural department has been heretofore or is hereafter established in a High or Continuation School, the Board having control of such department or school shall appoint for such agricultural department an Advisory Agricultural Committee consisting of eight persons, four of whom shall be members of the Board, including one representative thereon of the Board of Public School Trustees and one of the Board of Separate School Trustees, if any; and four of whom shall be resident ratepayers of the local municipality or of the county in which the school or department is situated, but not members of the Board, each appointee being also a British subject of the full age of twenty-one and actually engaged in agricultural pursuits and in the judgment of the Board competent to advise and give other assistance in the management of the department.
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> Subject to the approval of the Minister and the Board, every Advisory Agricultural Committee shall have authority to prescribe courses of study and provide for examinations and diplomas; and, subject to the approval of the Board, (*a*) to visit and report on the school or department under its charge; to provide accommodations, equipment and supplies; (*b*) to fix the fees payable by pupils in attendance; (*c*) to submit annually to the Board at such date as the Board may require an estimate of the amount required to carry on the work of the school or department during the ensuing year; and (*d*) generally to do all other things necessary for carrying out the true object and intent of the section of the Act providing such Advisory Agricultural Committee.

The teacher of agriculture is, accordingly, subject to the control of the Minister of Education and the Advisory Agricultural Committee.

(3) As county representative of the Department of Agriculture, he is also subject to the control of the Minister of Agriculture.

Qualifications of Teacher.

2.—(1) The teacher of agriculture shall hold the degree of B.S.A. from the University of Toronto, or a certificate of qualification from the Ontario Agricultural College. Such teacher may also take part in the Science work of the school at the discretion of the High or Continuation School Board and of the Principal, and with the approval of the Ministers of Education and Agriculture.

(2) Except when otherwise provided by the Minister of Education, the county representative alone shall teach the agricultural classes under the control of the Advisory Agricultural Committee.

Ministry of Education, Ontario
Historical Collection

Centres for School Classes.

3. The teacher of agriculture shall conduct classes in agriculture at the High School centre to which he has been appointed, and at other centres selected by the Minister of Education on the application of the other High School Boards or of the Continuation School Boards at such centres.

Accommodations and Equipment.

4. When rendered necessary by the course of study, the following shall be provided:

(1) A suitable Laboratory and the Equipment necessary to carry out the work as outlined in the course of study.

(2) Experimental Grounds, separate from the ordinary school grounds, for illustration purposes in the growing of various classes of farm crops and for training in experimental work. The area of the grounds shall be determined by local conditions.

NOTE.—*For a list of suitable equipment, see Circular No. 47, which may be obtained on application to the Deputy Minister of Education.*

Legislative and County Grants.

5.—(1) The High or Continuation School Board shall be the custodian of the funds supplied by the Legislature and the county.

(2) After providing for the payment of the salary of the agricultural teacher, the rest of the funds may be used for any purpose authorized by the Board and directly connected with the duties of the agricultural appointee, whether as teacher of agriculture or as county representative of the Department of Agriculture.

Inspection.

6. An Inspector, appointed by the Minister of Education, shall visit each county at least once a year and shall report to the Minister of Education on the condition of the agricultural classes at the different centres controlled by the Advisory Agricultural Committee.

Admission Requirements.

7.—(1) In addition to pupils who have passed the High School Entrance Examination, others who, in the judgment of the Principal of the High or Continuation School and the teacher of agriculture, are competent for the work, may be admitted to the school agricultural classes with the approval of the Advisory Agricultural Committee.

(2) A list of such pupils and their reported attendance shall be kept by the Principal of the School; but they shall not be enrolled as regular High School pupils unless they have been duly admitted.

School Agricultural Classes.

8. Pupils at a High or Continuation School centre may take the agricultural classes either alone or in addition to one or more of the other school classes.

9.—(1) The courses shall be arranged with a view to meet the needs of the local farming community and shall be selected from the subjoined list of subjects, with such additions or modifications as may be approved by the Advisory Agricultural Committee and the Minister of Education.

(2) The courses should be prepared by the teacher of agriculture for submission to the Advisory Agricultural Committee and, when approved by it and the Board, should be transmitted promptly to the Minister of Education for his consideration.

10.—(1) The minimum length of a school course in agriculture shall be four weeks. Shorter courses for farmers are provided under the authority of the Minister of Agriculture.

(2) The total amount of time to be given each class per week shall be settled by the Advisory Agricultural Committee, after consultation with the teacher of agriculture.

(3) In the construction of his time-table and the management of his school classes, the teacher of agriculture shall be subject to the Principal of the High or Continuation School.

School Departments of Agriculture.

11.—(1) A Department of Agriculture may also be provided in a High or Continuation School with a maximum course of two years.

(2) Pupils taking such Agricultural department shall take in addition to the agricultural classes, which also shall be selected from the subjoined list of subjects, the academic subjects which are obligatory upon all High or Continuation School pupils; namely, geography, arithmetic and mensuration, English grammar, writing, reading, English composition, English literature, and history, with such suitable modifications and with such additional subjects as may be deemed expedient by the Principal and the parent or guardian of the pupil.

(3) Pupils who take the two years' Course of the Agricultural Department herein provided for, and whose competency is attested by the principal of the school and the teacher of agriculture, shall be eligible for entrance to the second year work of the Ontario Agricultural College.

NOTE.—*It is not expected that agricultural departments, separately organized, can be established for some time. The Advisory Agricultural Committee and the teacher of agriculture should, however, keep constantly in view the desirability of such establishment.*

List of Subjects of Agricultural Classes.

12.—(1) *Field Husbandry*—History of agriculture; different systems of farming; different kinds of soil; rotation of crops; farm crops in their relation to drainage; application of manures; green manuring; preparation of the land for the different crops ; methods of cleaning, testing, and selecting farm seeds; study of cereals, roots, fodder crops, grasses, clovers, and other farm crops; sowing, harvesting, preserving, marketing.

Experimental grounds near the school for illustrative experiments with varieties of cereals, grasses, and root crops, and in seed selection, methods of cultivation, rotation of crops, and the use of various kinds of fertilizers.

(2) *Animal Husbandry.*—A study of the history and characteristics of the principal breeds of live stock, including light and heavy horses, beef and dairy cattle, sheep, and swine; feeding and management; principles of breeding; registration of pedigrees; market requirements.

Visits to local farms, and practical work in judging stock.

(3) *Dairy Husbandry.*—The herd: formation, care, and management of a dairy herd, rearing of calves; dairy stables; lighting, cleaning and ventilating; individual cow records. The milk: care of milk, elementary chemical and bacteriological study of milk. The home dairy: running of hand separators and care of dairy utensils; manufacture, packing, and marketing of butter.

Visits to local creameries and cheese factories, and a study of factory methods of manufacture, packing, and marketing.

(4) *Poultry.*—The most valuable breeds and varieties of hens, ducks, geese, and turkeys, their characteristic points and peculiarities; various methods of housing poultry; incubation, brooding, and rearing of chickens; general methods of feeding and management; market conditions; the fattening and dressing of poultry for home and foreign markets.

(5) *Horticulture.*—Treatment of fruit plantations: cultivation, grafting, spraying; value of cover crops; methods of growing and caring for vegetables; selection of varieties; study of insect and fungus diseases affecting fruits and vegetables; care, storing and marketing of fruit.

(6) *Forestry.*—Forestry as related to the farm; classification of the common forest trees, the establishment, care and protection of the wood-lot; varieties and methods for roadside planting and shelter belts.

(7) *Agricultural Botany.*—Identification and eradication of weeds and weed seeds; Seed Control Act and its application; experiments to show seed germination and growth of plants; the relation of plants to

soil, air, light, temperature, and moisture; systematic study of the structure of cereals, grasses, legumes, and roots; plant diseases: smut, rust, mildew, etc.; how to recognize and combat them; collecting, pressing, and mounting of weeds and grasses; weed seeds for samples in identification.

(8) *Entomology.*—A practical course in economic insects, identification, habits, and life histories; a close study of the more important insects, by means of breeding and rearing cages; insecticides; collecting of injurious and beneficial insects and samples of their work.

(9) *Agricultural Physics.*—Soil: classification and physical examination, origin, and mode of formation; soil forming, soil-forming rocks and minerals; behaviour towards moisture. Surveying and drainage; measurement of fields and farms with the chain; calculating areas and drawing plans; use of various instruments for determining levels, preparing plans for drainage; methods of digging, laying of tile, and filling of trench; calculations concerning required size of tile and cost of various systems. Conservation of moisture by drainage, mulching, and cultivation; capillarity and its relation to plant growth. Water capacity of different soils. Mechanics: principles of farm machinery; principles of ventilation, lighting and heating.

(10) *Agricultural Chemistry.*—Chemical composition of soils; elements used by plants; availability and assimilation of plant food in the soil; application of fertilizers; absorption and retention of important constituents, as nitrogen, phosphoric acid, and potash; insecticides and fungicides; their composition and proper mixture.